

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A carrying device ~~Device~~ for carrying a preform in ~~the an~~ temperature condition oven of a facility for blow forming containers made of thermoplastic material, of the type in which, the preform (12) is obtained by injection molding and comprises, ~~at including a body and an axial upper end of its body (32), a tubular neck (36), which is directly injected to its final form, and of the type in which the preform (12) is held on the carrying device (14) by~~ the carrying device comprising:

a gripping device (10) having gripping claws ~~(52) that~~ which enclose an outer surface of the neck (36) to hold the preform (12);

~~characterized in that the gripping device (10) comprises an inner core (62) that~~ which penetrates axially inside the neck of the preform (36), such that it presents the inner core having a lower transverse surface (64) ~~which, when the preform (12) is in place on the gripping device (10), is substantially axially situated at the boundary between the neck (36) and the body (32) of the preform (12), and in that the lower transverse surface (64) of the core (62) forms a reflecting surface for the heating energy provided by the oven; and~~

at least one fin which radially extends from the inner core which is operative to dissipate heat that is absorbed by the inner core.

2. (currently amended): ~~Carrying~~ The carrying device according to claim 1, ~~characterized in that~~ wherein the diameter of the core (62) is substantially equal to, but less than, the inside diameter of the neck (36) of the preform (12).

3. (currently amended): ~~Carrying~~ The carrying device according to ~~either of the preceding claims, characterized in that~~ claim 1, wherein the core (62) ~~is extended upward~~ fin is in the form of a radiator (66, 68) ~~that allows the heat absorbed by the core (62) to be dissipated.~~

4. (currently amended): ~~Carrying~~ The carrying device according to ~~any of the preceding claims, characterized in that~~ claim 1, wherein the gripping claws (52) are made in the form of a bell (44) open at the bottom, inside of which, the neck (36) of the preform (12) is axially engaged, the bell (44) being provided with a series of radial slots (50) that are angularly distributed so as to delimit, between two successive slots, one gripping claw (52) that is elastically radially deformable.

5. (currently amended): ~~Carrying~~ The carrying device according to claim 4, ~~characterized in that~~ wherein the bell (44) is formed from a circular upper transverse plate (45), from which a tubular skirt (46) extends axially downward, the inside diameter of the skirt (46), at least for part of its length, ~~being of~~ having a smaller diameter than the outside diameter of the neck (36), so that the claws (52) engage on the neck (36) by tightening it radially.

6. (currently amended): ~~Carrying~~ The carrying device according to ~~claims 4 or 5,~~
~~characterized in that~~ claim 4, wherein the bell (44) is made of plastic.

7. (currently amended): ~~Carrying~~ The carrying device according to ~~any one of claims 4~~
~~to 6, characterized in that it has~~ claim 4, further including a circular spring (54) that encircles the
bell (44) at ~~the~~ a lower end of the claws (52) to pull them radially inward.

8. (currently amended): ~~Carrying~~ The carrying device according to ~~any of the preceding~~
~~claims, characterized in that~~ claim 1, wherein the gripping device (10) is rotatably mounted
around its axis (A1) on the carrying device (14, 18), ~~which also carries the~~ carrying device
further including,

an ejection means, ~~making it possible~~ which is operative to loosen the preform (12) from
the gripping device (10); ~~the~~ ejection means being ~~are~~ arranged above the gripping device (10)
and ~~have~~ having at least one ejection finger (78) ~~that~~ which extends axially downward, and ~~it is~~
being provided with means (16, 28, 30) ~~for the relative axial displacement of~~ axially displacing
the gripping device (10) and the ejection means (78) in such a way that, during a relative ejection
stroke, the ejection finger (78) is placed against the preform (12) in order to move it axially
downward with respect to the gripping device (10).

9. (currently amended): ~~Carrying~~ The carrying device according to claim 8, ~~characterized in that wherein~~ the gripping device (10) is mounted so as to be axially movable on the carrying device (14, 18), and the ejection means (78) ~~are~~ is attached axially, but rotatably movable with respect to the carrying device (14, 18).

10. (currently amended): ~~Carrying~~ The carrying device according to ~~either one of claims 8 or 9, characterized in that taken in combination with claim 5, claim 8, wherein~~ during [[a]] the relative ejection stroke, the ejection finger (78) passes through an orifice (80) in ~~the~~ an upper plate (45) of the gripping bell (44) and is received in an aperture (82) made in ~~the~~ a periphery of the core (62).

11. (currently amended): ~~Temperature~~ A temperature conditioned oven for a plastic container ~~blow forming facility, characterized in that it has, comprising:~~

a carrying device incorporating any one of the preceding characteristics, said carrying device including;

a gripping device having gripping claws which are closable around an outer surface of the neck to hold the preform;

an inner core which is adapted to penetrate axially inside the neck of the preform, the inner neck having a lower transverse surface which forms a reflecting surface for reflecting heating energy provided by the oven; and

at least one fin which radially extends from the inner core and which is operative to dissipate heat that is absorbed by the inner core.

12. (new): The carrying device according to claim 1, wherein when the preform is in the gripping device, the lower transverse surface is substantially axially situated at the boundary between the neck and the body of the preform.

13. (new): The carrying device according to claim 1, wherein the lower transverse surface of the core forms a reflecting surface for reflecting heating energy provided by the oven.

14. (new): The carrying device according to claim 1, wherein a plurality of fins are provided, such that the adjacent fins are separated by a groove.

15. (new): The carrying device according to claim 1, wherein the gripping device includes radially extending slot portions which allow for the gripping device to elastically deform so as to engage the tubular neck of the preform.

16. (new): A carrying device for carrying a preform in a temperature condition oven for blow forming containers made of thermoplastic material, the preform being obtained by injection molding and including a body with a tubular neck, the carrying device comprising:

a gripping device having gripping claws which are closable around an outer surface of the neck to hold the preform; and

an inner core which is adapted to penetrate axially inside the neck of the preform, the inner core having a lower transverse surface which, when the preform is in the gripping device, is substantially axially situated at a boundary between the neck and body of the preform,

wherein the lower transverse surface forms a reflecting surface for reflecting the heating energy provided by the oven,

wherein the gripping claws are made in the form of a bell open at the bottom, inside of which, the neck of the preform is axially engaged, the bell being provided with a series of radial slots that are angularly distributed so as to delimit, between two successive slots, one of the gripping claws, which is elastically radially deformable, and

wherein a circular spring is provided which encircles the bell at a lower end of the claws to pull the claws radially inward.

17. (new): A carrying device for carrying a preform in a temperature condition oven for blow forming containers made of thermoplastic material, the preform being obtained by injection molding and including a body with a tubular neck, the carrying device comprising:

a gripping device having gripping claws which are closable around an outer surface of the neck to hold the preform;

an inner core which is adapted to penetrate axially inside the neck of the preform, the inner core having a lower transverse surface which, when the preform is in the gripping device, is substantially axially situated at a boundary between the neck and body of the preform, the lower transverse surface forming a reflecting surface for reflecting the heating energy provided by the oven;

an ejection means which is operable to loosen the preform from the gripping device, the ejection means being arranged above the gripping device and having at least one ejection finger which extends axially downward; and

means for axially displacing the gripping device and the ejection means in such a way that, during a relative ejection stroke, the ejection finger is placed against the preform so as to move it axially downward with respect to the gripping device,

wherein during a relative ejection stroke, the ejection finger passes through an orifice in an upper plate of the gripping bell and is received in an aperture made in a periphery of the core.

18. (new): The carrying device according to claim 17, wherein the gripping device is rotatably mounted around its axis on the carrying device.

19. (new): A carrying device for carrying a preform in an oven, the preform including a body and a tubular neck, the carrying device comprising:

a gripping device having gripping claws which enclose an outer surface of the neck to hold the preform, the gripping claws being made in the form of a bell open at the bottom, inside of which, the neck of the preform is axially engageable;

an inner core which is adapted to penetrate axially inside the neck of the preform, the inner core having a lower transverse surface; and

an ejection finger which extends downward such that during a relative ejection stroke, the ejection finger passes through an orifice in an upper plate of the gripping bell and is received in an opening made in a periphery of the core so as to press against the preform.